AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all versions and listings of claims in the application:

1. (Previously Presented) A data processing apparatus for performing a second quantization on data to be processed, the data to be processed obtained by performing inverse quantization after performing a first quantization by a first quantization scale, comprising:

a quantization scale generation means for generating a second quantization scale Q(i) based on the first quantization scale for the data to be processed, the data to be processed corresponding to image data including blocks of data MBm(i) and MBm(i+1), and the first quantization scale including scales Qm(i) and Qm(i+1), wherein blocks MBm(i) and MBm(i+1) are subjected to the first quantization based on the first quantization scales Qm(i) and Qm(i+1); and

a quantization means for performing the second quantization on the data to be processed based on the second quantization scale generated by the quantization scale generation means,

wherein the quantization scale generation means calculates the second quantization scale Q(i) based on the scales Qm(i) and Qm(i+1), and calculates an additional second quantization scale Q(i+1), and

wherein the quantization means performs the second quantization on the block data MBm(i) based on the second quantization scale Q(i) calculated by the quantization scale generation means and performs the second quantization on the block data MBm(i+1) based on the additional second quantization scale Q(i+1).

2. (Previously Presented) A data processing apparatus as set forth in claim 1, further comprising:

a control means for generating first field data configured based on block data MBjt(i) obtained by performing the second quantization on the block data MBm(i), wherein the control means generates second field data to form a pair with the first field data, the second field data configured based on block data MBjb(i) obtained by performing the second quantization on the block data MBm(i+1).

3. (Previously Presented) A data processing apparatus as set forth in claim 1, further comprising:

a control means for generating field data configured based on block data MBj(i) and MBj(i+1) obtained by performing the second quantization on the block data MBm(i) and MBm(i+1).

4. (Previously Presented) A data processing apparatus as set forth in claim 1, wherein the quantization scale generation means specifies a quantization scale Qa based on a predetermined function using the first quantization scales Qm(i) and Qm(i+1), and calculates the second quantization scales Q(i) and Q(i+1) based on the specified quantization scale Qa.

5. (Previously Presented) A data processing apparatus as set forth in claim 4, wherein the quantization scale generation means specifies the quantization scale Qa based on the function using the smaller of the first quantization scales Qm and Qm(i+1) as

quantization scale Qa.

6. (Previously Presented) A data processing apparatus as set forth in claim 4, wherein the quantization scale generation means specifies the quantization scale Qa by calculating (Qm(i)+Qm(i+1)+1)/2.

7. (Previously Presented) A data processing apparatus as set forth in claim 4, wherein the quantization scale generation means calculates an average value of quantization scales corresponding to the blocks of data, and calculates an activity value by dividing the quantization scale Qa of the block data to be processed by the average value, the second quantization scale of the block data to be processed being calculated based on the activity value.

8. (Previously Presented) A data processing method for performing second quantization on data to be processed, the data to be processed obtained by performing inverse quantization after performing first quantization by a first quantization scale, the method comprising:

generating a second quantization scale Q(i) based on the first quantization scale for the data to be processed, the data to be processed corresponding to image data including blocks of data MBm(i) and MBm(i+1), and the first quantization scale including scales Qm(i) and Qm(i+1), wherein blocks MBm(i) and MBm(i+1) are subjected to the first quantization based on the first quantization scales Qm(i) and Qm(i+1);

performing the second quantization on the data to be processed based on the generated second quantization scale, wherein the second quantization scale Q(i) is calculated based on the scales Qm(i) and Qm(i+1);

calculating an additional second quantization scale Q(i+1);

performing the second quantization on the block data MBm(i) based on the second quantization scale Q(i); and

performing the second quantization on the block data MBm(i+1) based on the additional quantization scale Q(i+1).

9. (Previously Presented) A coding apparatus, comprising:

a decoding means for generating decoded data by decoding coding data obtained by performing first quantization based on a first quantization scale including first quantization scales Qm(i) and Qm(i+1);

a quantization scale generation means for generating a second quantization scale based on the first quantization scale for the decoded data, the decoded data including blocks of data MBm(i) and MBm(i+1), wherein blocks MBm(i) and MBm(i+1) are subjected to the first quantization based on the first quantization scales Qm(i) and Qm(i+1); and

a quantization means for performing second quantization on the decoded data based on the second quantization scale generated by the quantization scale generation means,

wherein the quantization scale generation means calculates the second quantization scale Q(i) based on the scales Qm(i) and Qm(i+1), and calculates an additional second quantization scale Q(i+1), and

wherein the quantization means performs the second quantization on the block data MBm(i) based on the second quantization scale Q(i) calculated by the quantization scale generation means and performs the second quantization on the block data MBm(i+1) based on the additional secodn quantization scale Q(i+1).

10. (Previously Presented) A data processing apparatus for performing second quantization on data to be processed, the data to be processed obtained by performing inverse quantization after performing first quantization by a first quantization scale, comprising:

a quantization scale generation circuit for generating a second quantization scale Q(i) based on the first quantization scale for the data to be processed, the data to be processed corresponding to image data including blocks of data MBm(i) and MBm(i+1), and the first quantization scale including scales Qm(i) and Qm(i+1), wherein blocks MBm(i) and MBm(i+1) are subjected to the first quantization based on the first quantization scales Qm(i) and Qm(i+1); and

a quantization circuit for performing the second quantization on the data to be processed based on the second quantization scale generated by the quantization scale generation circuit,

wherein the quantization scale generation circuit calculates the second quantization scale Q(i) based on the scales Qm(i) and Qm(i+1), and calculates an additional second quantization scale Q(i+1), and

wherein the quantization circuit performs the second quantization on the block data MBm(i) based on the second quantization scale Q(i) calculated by the quantization scale generation circuit and performs the second quantization on the block data MBm(i+1) based on the additional second quantization scale Q(i+1).

11. (Previously Presented) The data processing apparatus as set forth in claim 1, wherein the blocks of data MBm(i) and MBm(i+1) correspond to two blocks of data having adjacent positions in the image data.

12. (Previously Presented) The processing method as set forth in claim 8, wherein the blocks of data MBm(i) and MBm(i+1) correspond to two blocks of data having adjacent positions in the image data.

13. (New) A data processing method as set forth in claim 8, further comprising:

generating first field data based on block data MBjt(i) obtained by performing the second quantization on the block data MBm(i), wherein the second field is generated data to form a pair with the first field data, the second field data configured based on block data MBjb(i) obtained by performing the second quantization on the block data MBm(i+1).

14. (New) A data processing method as set forth in claim 8, further comprising:

generating field data based on block data MBj(i) and MBj(i+1) obtained by performing the second quantization on the block data MBm(i) and MBm(i+1).

15. (New) A data processing method as set forth in claim 8, further comprising:

specifying a quantization scale Qa based on a predetermined function using the first quantization scales Qm(i) and Qm(i+1); and

calculating the second quantization scales Q(i) and Q(i+1) based on the specified quantization scale Qa.

16. (New) A data processing method as set forth in claim 15, wherein the quantization scale Qa is specified based on the function using the smaller of the first quantization scales Qm and Qm(i+1) as quantization scale Qa.

17. (New) A data processing method as set forth in claim 15, wherein the quantization scale Qa is specified by calculating (Qm(i)+Qm(i+1)+1)/2.

18. (New) A data processing method as set forth in claim 15, further comprising:

calculating an average value of quantization scales corresponding to the blocks of data; and

calculating an activity value by dividing the quantization scale Qa of the block data to be processed by the average value, the second quantization scale of the block data to be processed being calculated based on the activity value.